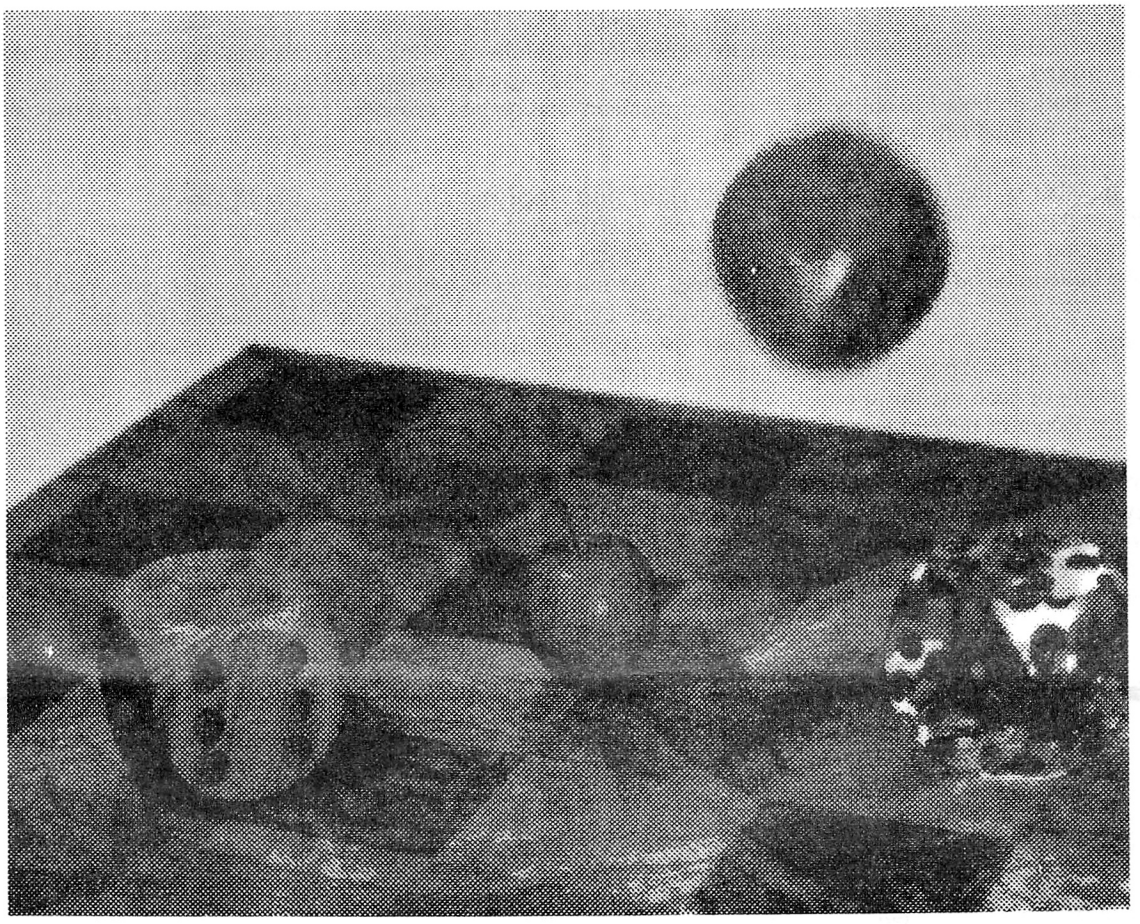
Canberra
Amiga
Users'
Society
Inc

beCAUS

September 1993



68000 Assembler • Real 3D V2 • PCMCIA
Fred Fish to go with CD-ROM!
Amiga Power BBS • CharityWare

Canberra Amiga Users' Society Inc

Aims of the Society
Canberra Amiga Users Society Incorporated (CAUS) is an independent group (currently with about 250 members) formed for the benefit of people who own, use or are interested in the Commodore Amiga computer.

Benefits
Benefits include a bi-monthly newsletter, monthly meetings, discounts, a bulletin board, Public Domain library, special interest groups (SIGs) and the opportunity to meet and exchange ideas with other Amiga users.

Subscriptions
Membership of the Society is available for an annual fee of $20. This fee may be paid, with a filled-in application form, either at any of the monthly meetings or by mail to the Membership Secretary, PO Box 596, Canberra 2601.

Bulletin board
The CAUS bulletin board is online 24 hours and is maintained by our new Sysop Darrell Cowan and his team. To be a member of the bulletin board, you need to pay $5.00 additional yearly subscription. The telephone number of the bulletin board is 292-5535.

Meetings
Meetings are held at 8 pm on the second Thursday of each month in either the Chifley Room or the auditorium at the Canberra Workers' Club in Childers St, Civic. The dates for the next few meetings are 14 October and 11 November. Members are welcome to use all Workers' Club amenities on the night (as long as you are signed in).

The Beginners' Group runs from 7-7:45pm prior to each meeting.

Details of upcoming meetings and main topics will be advertised in the Canberra Times "Fridge Door" the week of the meeting.

Newsletter Contributions
beCAUS is produced bi-monthly. Contributions to the newsletter can be ubmitted to the Editor via the newsletter area of the bulletin board, at the monthly meetings or to The Editor, PO Box 596, Canberra 2601.

Articles, reviews, comments and graphics are always welcome. The next newsletter is due out at the October 1993 meeting. The deadline for contributions to the newsletter is the end of the month preceding production. All contributions should be accompanied by the author's name and contact details. We reserve the right to refuse, disclaim and/or edit contributions.

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Advertising Rates

	Full	Half	Quarter
Regular	$25	$19	$10
Inside back	$49	$39	$19
Back cover	$74	$59	$29
	A4	**A5**	**A6**
Flyer inserts	$39	$29	
Artworks	$39	$29	$19

Copy is to be provided to the editor either in Amiga graphic file format or as appropriately sized printed copy.

Production
The Editor for this newsletter was Darryl Hartwig. The copy was formatted by the DTP SIG using Professional Page v4.0 and the masters were printed on a Postscript printer by Desktop Utilities. The offset printing was done by Tuggeranong Print.

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Front Cover
On the front cover is a ray-traced picture done with Real3D version 2. The picture was converted from HAM to 16 colours (because I couldn't get the HAM version on the front). See article in this issue for more info.

CAUS Committee (1993)

Director	Chris Townley	254-5922(h) 6-8pm
Vice Director	Michelle Jenkins	241-8785(h) 6-8pm
Secretary	Andrew White	281-1872(h) 6-8pm
M'ship Sec.	Mathew Taylor	251-5343(h) 6-8pm
Treasurer	Rob Ashcroft	254-4075(h) 6-8pm
Editor	Darryl Hartwig	293-2347(h) 6-8pm
Proprerty Officer	Joe McCully	255-2128(h)
Committee	Neil Squires	259-1128(h)
	Berenice Jacobs	255-2284(h)
	Loy Winkler	4-10pm

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Editorial

Hello everyone, I'm still here! No-one has kicked me out yet, so I've had another go at this newsletter. The previous one was released at the August monthly meeting, and was complimentary to those who were on our mailing list but haven't got current memberships. We hope that we will have all future magazines available at the meetings. So, in order to collect your newsletter earlier, be at the meeting! And thanks to those people who submitted articles and pictures for my first edition.

If you didn't notice, this newsletter has arrived only one month after the previous newsletter. We will be attempting to get the newsletter out each month (for a while - to see how it goes). To do this though, we need articles, articles and more articles, and some pretty (or not so pretty) pictures for accompaniment.

The August meeting went down well, with Mathew Taylor supplying several PD games. The amount of machines present was incredible! Everyone was wandering around looking at the games being played. There were several children present (which is a good thing - we should become more 'family' oriented), the youngest being 15 days old (my daughter!).

In the next few newsletters, we will have members of the committee introducing themselves and saying a few words about what they do within the club.

Secretary

Hi members, my name is Andrew White and I'm the Society's secretary.

I was elected in a landslide victory at the April AGM (... you know the one ... it was the one where everyone was away for Easter!). It just goes to show you that one seemingly innocent question "Hey! What does a secretary do anyway?", can have some fairly far-reaching implications! I was left to fill the rather large shoes of Tony Hayman, who had been secretary for two long years (part of the second year acting as treasurer as well!), so he was well in need of a break.

All that aside... it's been quite good fun (... no, really)!

As secretary my roles include: taking minutes of our formal meetings and monthly committee meetings, writing letters, responding to requests from outside of the society, collecting mail from GPO Box 596 and maintaining an accurate record of the society's correspondence and activities. Add to that, keeping a rather lively committee in check, and you can see that, at first this might appear to be a full time job. It's not! After the first couple of meetings things fall into place and everything flows along (fairly) smoothly.

Anyway, if you ever have any questions (or would like to see the society records), just drop me a line, give me a call - my number's listed in this newsletter or just see me at one of the meetings.

Cheers for now!
Andrew White

Professional Software
call your dealer!

ARexx Cookbook
Tutorial approach step by step
Useful projects that perform worthwhile tasks
ARexx and Postscript explained
Index cross-referencing with Hawes & Commodore manuals

Opus 4.1 /CanDo 2.51
All upgrades and tech support for Australian users through Desktop Utilities - registration $15 for Opus and $30 for CanDo, free for users whose packages came with DTU registration form

Contact 2.1
Puts you in touch, instantly

New version - a page and a half of new features! This personal information managerwill give you fast and easy access to addresses, phone numbers etc. Configurable modem device & dial prefix to select your preferred phone carrier at any time.

MathsMaster II
Another new release!
Now with mixed module combining addition, subtraction, multiplication and addition, and a high score table. For primary ages - maths games.

Desktop Utilities
PO Box 3053, Manuka, ACT 2603
Phone (06) 239 6658 Fax 239 6619 BBS 239 6659

Real 3D V2

(by Bernie den Hertog)

BRIEF DESCRIPTION

The latest and greatest 3D raytracing and animation package on the market for the Amiga. Knocks all the competitors flat on their face. Unparalleled.

LIST PRICE

$899.00.
But don't believe them. Shop around, I bought mine after some shrewed bargaining from Solutions Rendered in Sydney for $750.

HARDWARE REQUIREMENTS

- Three megabytes of memory **MINIMUM**. My 6Mb is nowhere **NEAR** enough to do anything with.
- Hard disk with 5Mb space free (and the rest for the huge files you constantly save to disk).
- 68020 or higher processor (my 68040 now seems to lack the necessary grunt).
- A maths coprocessor.

ie. This program runs like a slug on anything less than an A4000. The whole concept of manipulating and rendering 3D vector objects is highly processor intensive and will take as much power as you can throw at it.

COPY PROTECTION

You bet. For one of the most expensive programs on the Amiga market, I'd put one on my software too!

It comes with a dongle which unobtrusively plugs into the second joystick port. I've had no problems with other programs and the dongle, so it just stays there!

MACHINE USED FOR TESTING

Ahhh! A nice big A4000 thank you. 2Mb chip, 4Mb fast, 127Mb HD, 68040 CPU, MMU, 040 FPU, ie. standard.

DOCUMENTATION

Well. Let me first confess that I have only had the program now for 2 weeks. And believe me, I'm still only half-way through the manual! It is chunky (about 1.5" thick), very in-depth, although with a program like this, almost not enough so. After chugging through the excellent tutorials on modelling objects, I still feel that half of the available commands / tools are elusive to me. Don't get me wrong, I'm not professing to be a genius with this massive piece of software already! But I don't consider myself to be a novice either! Nevertheless, the manual is excellent, covers most of the program in an intuitive fashion, with comparatively easy to follow "learn-by-example" tutorials. The manual generally is of a very high standard. But ... the index sux. It doesn't seem to correlate to anything in the text!

REVIEW

Real 3D has been a long time coming for me, and I've searched long and hard to find ANY information relevant to it. ACAR seems to have only waffled along over the surface, promising a review next month and not coming up with the goods. So I feel compelled to give an overview of this excellent piece of programming.

The program comes on 4 archived disks. The program itself consumes 1.5Mb of RAM everytime it boots up. It only likes to use fast ram and will steer clear of chip. Hence, one needs some 8 to 12Mb of FAST ram to get any decent size project rendering.

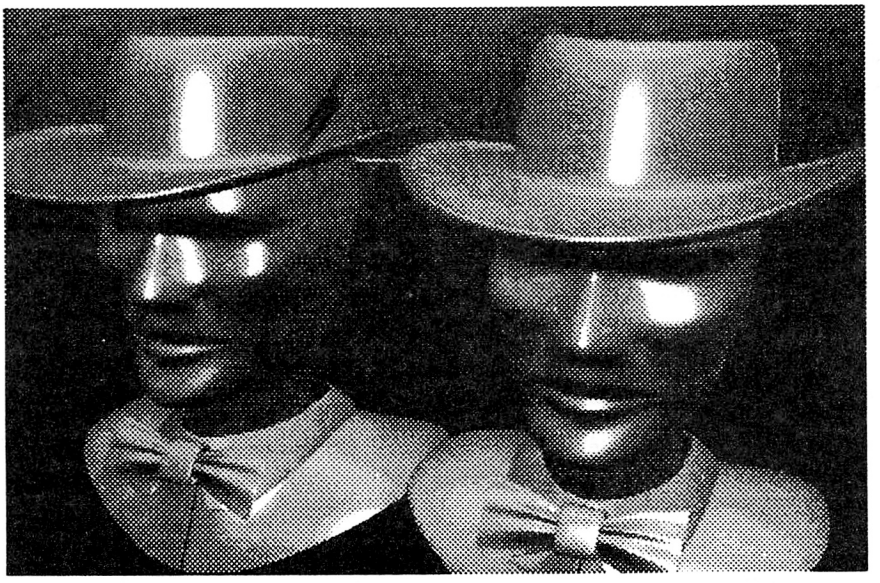
I still have Sculpt 4D, which in comparison is a brick. It may as well be used as a paperweight for all of its usefulness. How anybody ever produced any decent results with this program must have taken an enourmous amount of dedication...

Real 3D in comparison is substantially more powerful. Wireframe zooms are extremely quick and configurable. For very complex images, one can turn off certain shown features such as the amount of curve subdivision etc. in order to speed up display. The working window can be flipped from plan to side elevations at the press of a button, spun around with the arrow keys to view the object from any angle. And can be seen in perspective or axonometric.

The view in the current window is then the scene that is rendered. One presses A-r and the current window will render, in draft mode, in about 5 to 10 seconds. Very handy indeed.

Rendering modes consist of:

- Draft, which gives a quick render of the scene.
- Environment, gives a slower render, but shows the objects attributes (textures, bumpmaps etc).
- Lampless, gives an excellent result without the need of putting in any light sources.
- Shadowless, disregards shadows cast by objects. This is one of the most time consuming tasks in raytracing, hence this mode is relatively quick.
- Normal. This renders the scene in all its glory; colour, shadows, bumpmaps, textures, refractions, etc. And lastly...
- Outline. A very handy mode for getting a "Hidden line" view. It draws a wireframe of the object in its various colours.



Typically, a lo-res HAM picture of a simple scene takes about 3-5 minutes to render on my A4000. A Hi-Res HAM picture takes about 10-15 minutes. If one starts to add glass, light refractions and shadows, the rendering could take several hours. But compared to Sculpt 4-D, the same scene would have taken all night.

(continued on page 10)

PCMCIA - The Portable Computing Standard

(written by Mathew Taylor)

Most Amiga owners have at least heard of the term PCMCIA. Commodore have quietly inserted slots of this standard into their low end Amigas, and although not much has been said about this inclusion, there is a lot of potential for expansion for a machine with these slots.

What is it?

PCMCIA is short for Personal Computer Memory Card International Association. This trade association was founded in June of 1989, and now boasts over 300 members. Together with the Japan Electrics Industry Development Association, or JEDIA, PCMCIA has developed a standard of "Credit Card" interface that has gone beyond mere memory expansion.

How does it work?

The PCMCIA standard describes not only the physical characteristics of the card, but also the logical ones. The actual size of the card, the 68 pin connected at one end of the card, as well as the electronic and logical signals are all described in the standard, making it easy for a manufacturer to develop hardware independent expansion devices.

One of the main forces behind the development was the ideal of making a host system independent device, which would work equally well on a 680x0 or 80x86 based machine. The logical interface protocols are largely used for configuration, with industry standard protocols being used for actual operation.

There are three types of PCMCIA card at present. Each one is 54mm wide by 85.60mm long. The three types correspond to three thicknesses, being 3.3mm, 5mm and 10.5mm in height.

Each PCMCIA card has a region of memory called the Attribute Memory. The first 256 bytes of this memory is called the Card Information Structure, and contains information such as what type of device the card is (RAM/ROM or I/O) what size it is, as well as speed, power requirements and other important information. The host system reads this memory and uses the information to configure the card into the system.

The second region of memory is the Common Memory. This is the memory that the user of the system will have access to. In the case of a Ram card, the common memory would be the ram capacity of the card. In the case of a modem card, the common memory would be the interface registers used to control the device.

What can I get in PCMCIA?

Already many large manufacturers have produced PCMCIA products. EEPROM and battery backed up SRAM cards are widely available, offering users the ability to transport application programs or databases easily. If a device such as this supports the XIP (eXecute-In-Place) protocols, the programs can be run straight from the card, without the need to load the software into the host computers ram.

Volatile SRAM and DRAM cards can be used simply to extend the memory of a given host machine. This also gives users the opportunity to expand their machine at work, and also have those benefits of added ram at their home, without the expense of purchasing two sets of ram.

Netcomm have released their CardModem 24 version 2. A PCMCIA 2400 baud modem gives users an easily transportable modem wherever they go. Just recently (Late August) Banksia announced the release of their PCMCIA modems. Their units offer the complete range of protocols from V21 through to V32bis (14.4K). The card modems come with a special cable that has a flat connection on one end to plug into the card, and a standard RJ-11 plug on the other for connection to the phone line.

Xircom have produced three networking PCMCIA cards. The Xircom 800 gives users 10base-2 ethernet capability on thin coax cable. The Xircom 810 offers 10base-T on twisted pair and the Xircom 820 combines the two standards in the one card. (PCMCIA network cards sell for around $650-$750, PCMCIA modems for $550-$600)

Maxtor Corporation have launched their MXL-105-III, a type III hard drive. Their design provides enough space for two platters inside the tiny 10.5mm form factor. The unit provides advance data security features with the ability to lock the unit in a safe for optimum data safety.

The drive has a seek time of 19ms, a data transfer rate of 4meg and weighs in at just 65 grams. It will even withstand a non operating shock of 300 Gs and has a Mean Time Between Failure (MTBF) of 250,000 hours.

Well, there you have it, the new standard in portable computing. I guess now all you A1200 owners will be rushing out to buy a new PCMCIA Hard Disk or Modem???

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Help Service

The following is a list of members who have volunteered to share their knowledge and experience with other members. If you have a problem or just need a bit of advice in any of the areas listed, please ring during the hours shown.

What's happening	Paul Martin	10-10 M-Su	253-2121
General Help	Joe McCully	6-12pm M-Su	255-2128
	Andrew White	6-8pm M-F	281-1872
	Gordon Owttrim	7-10pm M-Su	297-2692
	Neil Squires	7-10pm M-F 10-9 Sa-Su	259-1128
Hard disks, Digiview	Simon Tow	6-7pm M-F	288-8362
Laser printing	Frank Keighley	6-7pm M-F	239-6658
Desktop Publishing	Frank Keighley	6-7pm M-F	239-6658
	Darryl Hartwig	6-8pm M-Th	293-2347
Desktop Video	Andre Hogie	6-8pm M-F	290-2474
Beginners AmigaDOS	Colin Vance	6-8pm M-Su	241-7113
	Mathew Taylor	6-8pm M-Su	251-5343
ProWrite	Darryl Hartwig	6-8pm M-Th	293-2347
Amos	Bernie Wiemers	6-8pm	248-9837
Superbase Wordperfect	Andrew Boundy	8-10pm M-Th	291-6971
C	Joe McCully	7-10pm M-F	255-2128
Hardware	Mathew Taylor	6-8pm M-Su	251-5343

Please contact the editor with updates to this list.

New Distribution For FISH DISKS

(written by Fred Fish)
(Submitted by Mathew Taylor)

OVERVIEW

I have further details on the CDROM distribution. Things are still very much in the preliminary planning phase, but as details become available I'll continue to post updates. The quick summary of the situation is that I am going ahead with CDROM distribution and plan to produce several types of CDROMs.

There will be a monthly CDROM containing several categories of material, including new material received since the previous month's CDROM, a continuously updated set of widely used "base tools" such as archivers, editors, compilers, text processors, etc, and possibly a few toys like the most popular PD games, and some random selection of older material on a space available basis.

There will be a quarterly CDROM containing the archived form of all the previous new material from the monthly CDROM's to date, plus as much of the floppy distribution as will fit.

When the floppy distribution reaches 1000 disks, there will be a CDROM with the contents of the entire floppy library (assuming it can be made to fit of course) and the library will migrate to CDROM distribution only (expected to happen in early 1994).

WHY CDROM DISTRIBUTIONS

More Cost Effective

It is simply far more cost effective, both for me and for the library subscribers, to distribute the library on CDROMs than on floppy disks. The current cost of a subscription averages about $40/month for less than 12Mb of new material per month. A CDROM distribution, depending upon quantity, is expected to be $20/month or less for 50-150Mb of new material per month (assuming there actually is that much available).

Multiple Distribution Formats

With the floppy distributions, the name of the game is sometimes to see just how much material can be crammed onto a single floppy. There is almost always a tradeoff between the convenience of having the material in unarchived format and the desire to get as much material as possible into a new release, or to make something fit on a single floppy. A fair amount of time actually goes into juggling things around until a set of 10 floppies achieves the desired density of 95-100% full.

With a CDROM distribution, we get the best of both worlds. With a vastly larger amount of room to play with, the new material can be distributed directly in two forms, a ready-to-run form (unarchived) and a BBS-ready form (archived) on the same media. This is how the monthly CDROM will be organized. The quarterly archival CDROM's will contain only the BBS-ready form.

COORDINATION WITH FLOPPY DISTRIBUTION

Timing of Floppy Releases

For the past several years, I've released floppy disks in batches of 10, with a new batch being released about every 2 to 6 weeks. Beginning with the first monthly CDROM release, floppy releases will occur when the CDROM is committed to production, and will not be any set number of disks.

It is expected that when a new CDROM is released each month, that there will be 15-25 floppy disks that are released at the same time, the contents of which will make up some fraction of the new material that is included on each CDROM. Note that not all the new material will be contained on the floppy disks; the only way to get all the new material is via the CDROM. There will be a supported way of recreating individual copies of the floppy disk distribution from the contents of the CDROM.

I expect to release one more batch, 901-910 before the first CDROM is completed. This batch should be released in the last week of August. I'm currently projecting the first CDROM master to be completed by the last week of September and committed to production in early October.

Migration to CDROM Only Distributions

Once the library reaches disk 1000, there will be no more floppy releases and the library will move to CDROM only. Part of the reason for this is to allow people time to acquire CDROM drives and part of the reason is that it would be a shame to get this close to disk 1000 and not reach it. :-)

After the release of disk 1000, there will be a CDROM containing the entire library, possibly in the archived BBS-ready form. The exact details will be determined during production of the CDROM, taking into account experiences and feedback from users of the monthly CDROMs.

ORGANIZATION OF THE CDROMs

The Monthly CDROM

The monthly CDROM is designed to meet the needs of users who want copies of new releases of material as soon a practical with a CDROM distribution. Depending upon when the material was received in the CDROM production cycle, and the time to go from CDROM master to production CDROMs, there should be an average latency of about 3 weeks.

However since it is unlikely that there will be enough new material each month to fill a CDROM (or enough time to organize it if it was available), I might as well include some other material on the CDROM and make effective use of the available space. Although subject to change, it's anticipated that the monthly CDROM will be organized into several different sections:

- A overview section containing information about the library, this particular CDROM, hot breaking news, etc.
- A section containing material that is newly released with this CDROM, in ready-to-run (unarchived) form.
- A section containing material that is newly released with this CDROM, in BBS-ready (archived) form.
- A section containing installed versions of popular tools that are anticipated to be released in updated form on each CDROM. By leaving the CDROM mounted, you can potentially free up several hundred

With a CDROM distribution, we get the best of both worlds

megabytes of hard disk space to use for other purposes. Of course the tools can still be copied from the CDROM to a hard drive if you prefer the faster access speed of the hard drive or don't wish to leave the CDROM mounted all the time. If this section gets too large, it may be split off onto a separate tools CDROM.

- A "filler" section. Whatever space remains after putting everything else on the CDROM will be filled with selected material from a previous CDROM or from the floppy based library distributions. This may or may not include all the new material from the previous CDROM, depending upon space available. The intention is that if possible, users will be able to order every other monthly CDROM (at least in the beginning) and because of the overlap, not miss any of the new material.

The Quarterly CDROM

This CDROM is intended to meet the needs of users who don't want the monthly CDROM, and prefer to get their doses of new material in larger chunks over longer intervals. It also provides a way for BBS operators to have the maximal amount of recently released new material online using a single CDROM. All of the material on the quarterly CDROM will be in the BBS-ready format.

The quarterly archival CDROM will contain all the new material from each of the previous monthly CDROMs, back as far as the CDROMs go or until the quarterly CDROM is out of space. For the first several quarterly CDROMs there will probably not be enough older CDROM material to fill it up, so material will be included from the floppy distribution, starting with the latest disk and working backwards until the CDROM is full.

The Floppy Archival CDROM

Once the floppy distribution reaches 1000 disks, there will be a CDROM with the entire contents of the floppy library, in the BBS-ready format.

LIMITED PRODUCTION RUNS OF FIRST CDROMs

The first couple of monthly CDROMs will probably have limited production runs; basically the number of preorders plus some small percentage to cover post production demand (20% maybe?) and another small percentage to cover returns, promotional copies, etc (10% maybe?). Thus if there are preorders for 300 disks, I'll probably order an extra 100 or so. The reason for this is to reduce the risk of significantly overestimating the actual demand and having to heat my house with unused CDROMs, using the fireplace. :-)

ORDERING INFORMATION

I've decided on the following price schedule, until it becomes more clear exactly what the actual demand for CDROMs will be. Depending upon the actual demand after the first two or three monthly CDROMs, the price may be adjusted either up or down.

- $15 per CDROM, plus shipping and handling, for any four or more CDROMs preordered by Sept 1st. Consider this a special discount for helping to defray startup costs and for helping to determine potential actual demand early in the process.
- $20 per CDROM, plus shipping and handling, for any CDROM preordered before the CDROM master is committed to production, which is expected to be late September or early October for the first CDROM and approximately monthly thereafter.
- $30 per CDROM, plus shipping and handling, for any CDROM ordered after the master is committed to production. Availability cannot be guaranteed, and is on a "first come first served" basis.
- Shipping and handling is $3 per CDROM for domestic USA first class mail shipments and $5 per

(continued on page 11)

Amiga Power BBS

Mathew Taylor's hard-hitting interview with the Sysop of Amiga Power BBS, Darrell Cowan.

Mathew: So Darrell (Hinch, eat your heart out!), what platform do you run the BBS on?
Darrell: Amiga Power is run on a basic Amiga 500 with the standard 68000, with 5meg of RAM and a 160meg Hard Drive. But the software is what makes it all possible. Xenolink is a great BBS package. Not only is it easy to set up, but hopelessly easy for users to get around and use the BBS.

Mathew: My my my, only an A500?? Don't you find it ties up your machine a lot?
Darrell: No, not at all, as all Amiga users have come to know, the Amiga is a great multitasking machine; therefore you can do more than one thing at a time. There are many occasions that someone is online (connected to the BBS) and I am unpacking files or playing the odd game, so I don't have to stop using my Amiga because someone else is using it...

Mathew: What sort of services does your BBS provide?
Darrell: The BBS has a lot of things to offer it's members, there are a great range of files for CAUS members, more than what the regular users have access to. Also there are message areas and online games, plus there will be something else available to all members, but I cannot say anything yet.

Mathew: What international echoes does your BBS Carry? Do you plan to add more in the future?
Darrell: There are many areas available to CAUS members; GlobalNet, which you can guess is a world wide echo base, so if you want to have a chat with someone from Germany, England or anyone in the world, then this is the place to do it. There are also Fidonet areas, AmigaNet areas, and for those who are old enough and game enough, AdultNet.

Mathew: How often do you get new files for the BBS?
Darrell: As some of our members have a greater range of access, we get a good range of new files. Also at the moment, I am trying to get ADS files coming in, so there will be a lot of files for CAUS members.

Mathew: Is it easy to log into your BBS?
Darrell: Yes, it is easy to log on to the BBS. All you need is a computer (any type will do), a modem and a comms program to use with the modem. Then it is a matter of dialing 2925535 and logging on. As a new user you will have limited access to the BBS until your account is upgraded. Once your account is upgraded, you will be able to use all areas available to you depending on your access. If you have any problems, then call me and I will try to help you as best I can.

Mathew: Can anyone use your BBS?
Darrell: Yes, anyone can use the BBS, as membership is not required, but access will be limited.

Mathew: What does it cost to use your BBS?
Darrell: There are different prices for different amounts of access. CAUS members get special access to ALL areas with a time limit of 90mins per session for the price of $5.00 per year.

Mathew: How much time a day would you spend on BBS Maintenance?
Darrell: There is not a great deal of maintenance to do on the BBS, it is all done with scripts in the small hours of the morning, as is the mail calls to other BBS's. This is one of the things that make this BBS package one of the best available.

Well, there you have it. All the facts and figures of BBS life, so get in there and have a go!

❑

AsmOne

68000 Series Assembler

BRIEF DESCRIPTION

A fast assembler/disassembler and debugger for 68000 code.

HARDWARE REQUIREMENTS

A half meg of memory is enough to start with, but larger programs require more memory.

It works fine with any Amiga CPU available today (60000 through 68040).

SOFTWARE REQUIREMENTS

It runs under any Kickstart version (tested under 1.2 through 3.1).

The freely distributable req.library makes your life easier but is not required.

MACHINE USED FOR TESTING

All available Amiga models with various Kickstart versions. Memory on these machines varied from a machine with 0.5 MB Chip RAM to a machine with 2 MB Chip RAM and 6 MB Fast RAM.

REVIEW

AsmOne looks very similar to the old K-Seka, but don't be fooled. Under the surface of the program there is a very powerful assembler with lots of options.

To start with, it asks you to specify your "work memory." This is a fixed value in kilobytes. Within this workspace, your source is placed together with the assembled program. All external files such as include files will not be placed here.

Writing a source file

There is no need for some kind of external editor. It's built in and it's *FAST!* It supports the basic cursor movements together with some extra commands (such as jump 100 lines up/down). There is block mark/ copy/ save to disk/ lowercase/ .../ ... options. Search/ search+replace, mark place/ jump to marked place... etc.

Assembling speed

Assembling is astonishingly fast. (Speed results for a 500 KB disassembled file originally written in C took 10.5 seconds to assemble. In comparison, Devpac takes 38.2 seconds.) If you are using include files, that's no problem. AsmOne does not read the files again if you don't ask it to. This speeds up assembling a lot on a floppy disk system. On a fast hard disk, it doesn't matter that much; but anyway, it's almost twice the speed if you assemble a file with lots of include files on a standard Amiga 3000.

Bug killing

There are some different type of error tracing methods, but the one I usually run is to stop assembling at an error. If an error occurs, the line that it occurred on is displayed together with an appropriate message.

The assembled file can be written as an object file or be run in memory. The link file is somewhat broken. If you choose to run the file from memory (it's the normal way to do it), you can either just run it as if it were run from disk, or run it in the debugger.

The Debugger

Running your program from the debugger is the real strength of AsmOne. In debug mode, you can see your source (as it was written in the editor). At the rightmost part of the screen in debugging mode are the normal registers (D0-D7/A0-A7/SSP/USP/SR/PL/PC). Now you can choose several options. The most normal is to set some kind of breakpoint somewhere within the code. This can be done by either setting a address or a label, or just marking a position using the cursor. Now, run the program. It will stop at the marked position. From here it is now interesting to check the failing part of the code. You might want to know what some of the registers are pointing to. Well, you simply add a watch(er). Some examples of watches are A0; A0+4; D0; $60000; (D0*3)+D1 and so on. The watches can be interpreted in several ways such as pointer to binary. Now you can step N instruction(s). By tracing the source down like this, you can find any error in a quite simple way.

Since there is a built-in-debugger, it handles all faults your program might come up to (such as TRAP-F) without a Guru. A fun side effect of this is that if the AsmOne code itself somehow gets destroyed, its own debugger breaks in.

Programming

AsmOne is not system friendly in the same way as Devpac. You can freely walk around in the memory poking around to see what you might find. This can be done either in hex+ASCII, plain ASCII, or as disassembled memory. You might feel, as I do, that you are on top of everything. It's nice just to peek'n'poke around just as you like and sooner or later you will (hopefully) find your annoying bug. AsmOne itself is programmed this way to be fast, but unfortunately it's sometimes too fast using some rude memory access methods. If you're running the Enforcer together with AsmOne's debug mode you will, each time you step an instruction, get an Enforcer hit on address $8 to $48.

The Program Itself

Unlike any other assemblers (except K-Seka), you can either work with the menus or work in a command-line mode. All commands are short and simple to use. Examples are "A" (Assemble), "AO" (Assemble with Optimize) and "h.l $60000" (look at memory address $60000 in hex mode and display it in longwords!). Most of these commands can be found in the menus. One of the commands that can't be found in the menus is the built-in calculator. It can calculate most of the normal programming operations such as AND, OR, NOT and the normal "+-/*" operations. Results are displayed in hex, decimal, ASCII and binary.

LIKES AND DISLIKES

The parts that I really like are the speed of the editor/assembling and the great debugger.

The parts that I dislike are that it can not run in any screen wider than 80 bytes, it can't edit more than one source at a time, and that it can't run batchfiles upon assembling (like linking a source automatically after assembling).

BUGS

Well, there are no major bugs, but there's a LOT of minor bugs. For example, if you want to look at memory in longwords you can use "h.l $50000". But if you're using "h.l a0" the memory will be shown in byte format. I can live with this though.

CONCLUSIONS

The product is great, especially for its speed (as I've told you before :)). I'll give it a 4 out of 5. It would be a 5 if the bugs were removed!

My final word is: yes you should buy it. (If you can: it's not sold in all countries.) I've been using it for a long time now and I have never regretted that I tried out this program.

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This text can be spread freely, but with no profit. If your purpose is in ANY kind to make money on this then contact me first.

❑

CharityWare

(by Leigh Murray)

Technical Aid to Disabled (TAD)
Recently I've made several disks for sale as charityware. That is, all proceeds from the sale of these disks go to Technical Aid to Disabled (TAD), a group of volunteers in Canberra who make technical aids to assist disabled people live an easier and more productive life. The group is no big-moneyed charity, and even a small infusion of funds can make quite a difference to them.

The whole idea for the TAD disks began with the Home Brewer disk, simply because I was so taken with the fascinating old recipes. And a group with the name Technical Aid to Disabled seemed the perfect recipient for any profits from the Home Brewer disk because the disk:

- was based on Beau Rice's work, and he has been partly disabled by a couple of strokes;
- was set up by me, and I'm currently restricted by allergies; and
- makes good use of the technical capabilities of the Amiga.

(And those who make up the recipes and drink the reputedly excellent results may well be rendered temporarily disabled! I giggle every time I see the reverse side of the Home Brewer icon, where it says Technical Aid to Disabled - before or after, I wonder?)

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Since the Home Brewer, I've expanded the scope of the TAD disks, trying to bring interesting low-cost disks to the many Amiga users out there.

Home Brewer Disk
Over many years Beau Rice collected more than 100 unusual recipes for beers, wines, liqueurs and fruit drinks, from numerous sources including very old books which are long out of print. The Home Brewer Disk contains a HyperBook database of Beau's recipes, designed for easy browsing and location of recipes. Recipes can be browsed sequentially, or accessed directly with just a few mouse clicks. Individual recipes can easily be printed.

Kids Disk
Aimed at small children, this disk has KeyBang (hit any key and get a random sound), animal sounds and cartoon pictures (click the cute icon to get the sound or picture), a slideshow, a simple drawing program, and a jigsaw program.

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Pix Disks
These disks contain collections of ready-to-use pictures of a suitable size for direct inclusion in documents written using one of the graphics word processors (such as Pen Pal, ProWrite or KindWords); they may also be loaded into Paint programs. Pix.A and Pix.B are black and white clip art; Pix.C is coloured clip art using a standard 16-colour palette. Each picture has an icon showing a representation of the picture.

Pix.A has animals, birds and plants (many Aussies). Pix.B has cartoons, fantasy, people and transport. Pix.C has animals, plants, cartoons etc.

Jigsaw.2 Disk
There are 21 pictures on the Jigsaw.2 Disk, modified for use with the IFF2PCS jigsaw program; the pictures can also be displayed as a slideshow. There are 4 fantasy pictures (Mickey Mouse, Mermaid etc), 6 fractals, 4 people (Einstein, the Beatles etc) and 7 scenes (from medieval to sci-fi). I think kids would like some of these pictures, and they might make nice mini-posters if printed on a colour printer.

Ordering Details
To order any of the disks, see David Bennett or the editor at the CAUS meetings, or send $6 for each disk to

(continued on page 12)

Real 3D V2

(continued from page 4)

The renderings are nothing short of staggering. The results are fantastic! One can render several windows on the same screen, all showing different views, in different modes, and best of all, takes a little over 10 minutes to generate a scene like this (small windows take very little time to render). One can also "crop" an image to render by drawing a box around the area of interest and rendering only that area.

Real 3D uses as many screens as you could be bothered to open. One can open a super-hi-res screen in HAM8 mode to render small windows showing views, and use the other screen to add and manipulate the object. (The higher the number of colours open on a window, dramatically slows down the speed with which the wireframes are redrawn. Typically the default screen is an 8 colour hires non-interlace screen).

The renderings are nothing short of staggering. The results are fantastic!

One of the biggest plusses of Real 3D is it's boolean operations. One can draw a box with a wooden texture assigned to it, and animate a drill bit drilling through the wood, and back out again, with the hole either filling in again or staying there! This is one of the very powerful features and is really indispensable in order to create any sort of realistic images.

Real 3D also comes with a large array of freeform drawing modes. By drawing the side elevation of a face, spinning the curve around say, 8 times, and adjusting each curve a bit to vaguely represent a human face, one can then map a mesh to the curves to get a 3-D head.

Meshes can be created easily, pulled up and stretched out, creating gnarly looking landscapes and the like. A "landscape generator" is included, but it is only for randomizing landscapes and it's usefulness is limited. The tree generator is extremely complex and the results are generally unsatisfactory, not to mention hugely complex and memory hungry (one tree can have around 3000 objects in it).

The animation system is very simple. One merely has to assign an object to a path (the path can be almost any object ... curve, line etc.) and divide the line into the desired number of steps. The animation system can work out friction, boiling water, inverse kinematics, morphing routines, etc. all of which I must confess I have not yet delved into, but looks impressive.

The macro language, RPL is very handy, making repetitious tasks a cinch. Press 'Record'; Make a duplicate of a sphere, rotate it a bit, press 'Record' again. Then say "execute current macro" and a repeat requestor comes up. Say 12 times, and voila!, the sphere is copied 12 times and rotated around to make a circle! Sounds silly I know, but believe me, this is a very handy feature. The RPL language can be used in conjunction with ARexx, and both are edited from a text editor like ED. RPL uses reverse polish notation, and is quite complex as it is a low level language, similar to FORTH.

Materials are simply amazing. Any ILBM picture or 24 bit TARGA file, can be mapped onto objects to give them a fake sense of reality. Eg. A scribble of a few brown circles radiating outwards like a cross section of a tree mapped around a "lathed" object created the most wicked looking wooden scepter you have ever seen! One can adjust the specularity, brilliance, turbidity, refraction, roughness of objects, add spline maps, colour maps, bump, transperancy, brilliance, clip and shadow maps. The possibilities are enormous!

CONCLUSIONS

The program is solid. Rarely guru's, but when it does, it's due to a lack of memory. The DXF import program supplied does not work!! Very disappointed. That was why I bought the program in the first place. Sculpt files can be imported in, as can PPage structured clip art. Real 3D V2.33 is the version I have, and I have heard another batch of programs are coming in very soon (next couple of weeks), but whether they are another update remains to be seen.

However, I still have a long way to go before I master this totally unreal program, and must put my nose down to the grindstone to try and extract the most from what I feel is the most powerful raytracing program I have used bar none.

Highly recommended. 9.9 out of 10. ❑

Membership Info

Well, I must say that our new editor is doing a fine job with the newsletter! I think you all agree the last edition was a top notch effort, and with this edition hot on its heals, I think we have an excellent newsletter with some really great information between its pages.

This fabulous effort, of course, is not the sole responsibility of the editor. Others must contribute the articles for him to collate before we even think of publishing an issue. We'd really like to see some prose from the general membership. Austin's article last issue was a real hit! Why not jot down your own personal Amiga experiences and see them in print?

It has been noted over the past few months that many of our members have allowed their membership to lapse. I would imagine that many of these lapses are just forgotten as no renewal notices have been sent out all year. This is because of a number of problems that have occurred, and will be corrected. This newsletter is, however, the last one non-financial members will be receiving. If you wish to continue receiving this publication, and the other benefits of CAUS membership, please remit your membership fees to the club's PO box address (printed on the inside front cover).

Along with the re-birth of the newsletter, has been the rebirth of the club bulletin board. The new number, for those that have missed it, is 292 5535. At present the BBS membership is only $5 per year per person - excellent value indeed.

The BBS has undergone extensive customization to cater for Caus members specifically, and financial members can enjoy the very latest fish disks on line (latest one on line is 900) as well as regular informative posts from other CAUS members. These benefits are not available to other users of the BBS.

Anyway, enough from me, enjoy the rest of the magazine, and I'll see you at the next meeting!

Mathew Taylor.

Magazine Library

Members can borrow from a wide selection of Amiga magazines available at the meeting (return next meeting). See Michelle Jenkins. All donations accepted. Thanks to those who have already donated.

CAUS Public Domain Collection

The Society's Fred Fish collection of public domain software contains a huge variety of goodies from text editors, databases, communication, graphic and music programs through to utilities, games, disks of pictures and animations and many demonstrations of commercial programs.

The following people are PD librarians:

Simon Tow	Fisher	288-8362
Lawrence Coombs	Aranda	251-5523
Berenice Jacobs	Scullin	255-2284
Bernie Wiemers (AMOS)		248-9837

You have the choice of buying the disks or swapping them for some new acceptable NAME brand disk that you own. The copying fee for each disk (except for the FISH catalogue disk) is $1 to cover the librarian's costs. For those who want other than the Fish collection, Berenice Jacobs holds a large collection of alternate public domain. Contact Berenice for more details.

Special Interest Groups

Each of the following members is coordinating a Special Interest Group (SIG) in the listed topic. If you are interested in joining one of these groups and getting more out of your Amiga, either contact them direct or indicate your interest at the next monthly meeting:

Joe McCully	255-2128	C programming
Darryl Hartwig	293-2347	DeskTop Publishing
Andre Hogie	290-2474	Video
Bernie Wiemers	248-9837	AMOS programming

If anyone else out there would like to start their own SIG, please see a member of the committee.

FRED FISH Distribution

(continued from page 7)

CDROM for overseas airmail shipments. Special arrangements such as federal express are available for a $10 special handling fee, plus actual shipping charges.

You can order CDROMs using the same address as for the floppy distribution:

Fred Fish
1835 East Belmont Drive
Tempe, AZ 85284
USA

FAX: (602) 491-0048 (FAX only, no phone orders via voice)

HYPERMEDIA CONCEPTS CDROM V1.7

The next Hypermedia Concepts "Fred Fish Collection on CD ROM" disk, version 1.7, should be available by mid September. By special arrangement with Hypermedia Concepts, this update will be available from me under the same conditions as the other CDROM disks, and can be one of the four or more disks preordered by Sept 1st to get the special $15 + S&H rate.

REDISTRIBUTION and COMPILATION COPYRIGHT

Free Redistribution Will Continue

The library will continue to contain only freely redistributable software. That is, if a user wishes to take something off of the CDROM and distribute it directly to other users, or make it available for electronic access, no permission is needed from me to do so.

Compilation Copyright

I struggled quite a while with this issue. I've always explicitly disclaimed a compilation copyright on the floppy distribution, mostly to make it simple for users to redistribute complete floppies, or the collection as a whole. It would not have been feasible to have a single source for the floppy based distribution and have the library achieve the popularity that it has today.

However, CDROMs change the entire picture. It is anticipated that there will eventually be almost an order of magnitude more time and effort put into acquiring and organizing the material on each month's CDROM, than what goes into the current floppy distribution. This is mostly because it is anticipated that there will eventually be an order of magnitude more material to organize.

So instead of 50 hours or so of work spread out over several weeks to organize the material on 10 floppy disks, it may take several people, working the equivalent of a full time job, several weeks to produce each CDROM. As with the floppy distribution, a significant percentage of the cost of each CDROM will go towards compensating various people for this labor. There will also be significantly higher fixed monthly costs associated with maintaining or contracting for the necessary equipment and software to produce CDROMs.

In short, CDROMs may bring a slightly more commercial flavor to the library (at least at the point of origin) than what has been traditional in the past for the floppy based distribution. However I will still strive to keep costs down and produce a CDROM that is an excellent value for the price. I hope the user community will understand the need for this change.

For these reasons, I have decided that the CDROM will have a compilation copyright, but the only restriction will be that it cannot be "cloned" and redistributed on CDROM or similarly priced optical media without prior permission, nor can it be used as the basis for generating a substantially similar CDROM distribution.

There will of course be no restrictions on mounting the CDROM and making its contents widely available for electronic distribution, copying the entire contents of the CDROM to non-optical media such as hard drives or tape, or copying any of the contents to media of much smaller capacity like floppy disks.

CD32 and CDTV COMPATIBILITY

Nothing has been decided yet about this issue, since I don't know anything about it yet, other than you have to pay a royalty of about $3 per CDROM to Commodore to include the necessary software/files on the CDROM. I don't know exactly what this buys you, or if it is important to a large percentage of the potential subscriber base. More info later as things become clearer.

INFORMATION OVERLOAD

Some people have expressed concern that a monthly CDROM, containing as much as 100Mb or more of new material, is too much too often. I'm expecting that the advantages of having all the new material on one media, having better methods of indexing the material, and having the material in ready to use form, will alleviate the problem of information overload.

One goal is to have the material organized so that someone can get a pretty good idea of what they are interested in, and what they are not, within the first 30 minutes or so of playing with the CDROM. ❑

CharityWare

(continued from page 9)

Attention: Margaret Enfield
Technical Aid to Disabled
67 Launceston St, Lyons ACT 2606

Or ring Margaret Enfield on (06) 286 3675; she is chief fund-raiser for the group. She doesn't have an Amiga, but she is happy to take orders and send out the disks, or you can collect them from her. If you know any Amiga users who'd enjoy these disks, please let them know how to buy them.

Possible Future Projects

I am thinking of making some recipe disks, along the lines of the Home Brewer disk, with HyperBook databases of recipes, set up especially for easy browsing and reference. If you like the Home Brewer disk and have any interest in cooking, then you would probably also enjoy these recipe disks. The disks would be ideal for people who already own the HyperBook program, because they'd be able to update the databases when they get new recipes; the disks would also be suitable for those who do not have HyperBook.

If anyone is interested in contributing (and thereby getting their own favourite recipes in this format), send me the recipes on disk in ASCII format, so I can include them in the databases. (I'm no typist - two fingers, often out-of-sync.) Send them to me via TAD, at the address above.

I'm also planning to set up a database of home hints for my own use; I may make it a TAD disk too. And if anyone has ideas for future TAD disks, please let me know. I enjoy doing what I can to help others realise how much fun they can have making productive use of their Amigas. I hope that the TAD disks will be part of this, and bring in some funds for a good cause.

❑

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What's Happening?

Upcoming Meetings

Sep 9: Word Processing
Oct 14: Demo of AGA and non-AGA machines
Nov 11: Xmas cards
Dec: Xmas Party!!!
Jan: Chrissy present meeting!

Raffle

The Committee is raffling a Maestro 14.4K Fax/Modem valued at approximately $600. Tickets will be $1 each and the proceeds will go towards purchasing a Video Projector for the club. So come on and join in. The modem will also suit IBM machines, so go and sell some tickets to those people as well. The raffle will be drawn at the November meeting. The second prize is an open order from Carina Computers valued at $100, and the third prize is a couple of boxes of disks (oh well!). Watch this space for more details!

To continue on about raffles, each meeting, the committee will be selling tickets to a raffle drawn on the night. The prizes will be of the order of a box of blank disks or a couple of PD disks. Cost, $1 per three tickets.

To continue on more about raffles, there will be other major prizes to be raffled, eg. Printers, etc. Come to think of it, any suggestions?

Christmas Break-up

As you know, Christmas is coming up very quickly, and due to the fact that we didn't have many people turn up at the last break-up, we would like your ideas. Maybe dinner out somewhere, a BBQ (always nice at that time of the year) or some sort of party. Let's let people know that Amigans can have fun at a party too! Talk to a committee member with any ideas, or we will have the same boring one that was had last year (sigh). More details will be forthcoming in future issues.

CAUS Trading Post

Members are allowed free advertising of any material (not just computers) for sale, wanted or to trade. Advertisements are at the editor's discretion. Contact the editor to place your ad, or for more details.